

NEWS MEDIA CONTACTS:

Julie Ulrich, 208-533-4167, julie.ulrich@inl.gov

Misty Benjamin, 208-526-5940, misty.benjamin@inl.gov

INL ATR NSUF Awards Five New University Proposals

IDAHO FALLS -- The Idaho National Laboratory Advanced Test Reactor National Scientific User Facility (ATR NSUF) has selected five new university-led research projects to conduct nuclear energy experiments that will advance research in nuclear fuels and help extend the lifetime of structural components in nuclear systems.

The ATR NSUF is one of the U.S. Department of Energy's National Scientific User Facilities located throughout the country that grants universities access to world-class facilities at no cost, with the goal of facilitating the advancement of science and technology.

Research teams from Boise State, University of Central Florida, Texas A&M, University of Michigan and Drexel University in Philadelphia will work with INL scientists on their proposed experiments. Here are the five newly awarded university-led proposals and their principal investigators:

- Darryl Butt, Boise State University (team members include Westinghouse and the University of Wisconsin): an irradiation and post-irradiation examination on "High Temperature In-Pile Irradiation Test of Single Phase U3Si2."
- Yongho Sohn, University of Central Florida (team members include Georgia Institute of Technology, Idaho National Laboratory, Argonne National Laboratory and Ohio State University): an irradiation and post-irradiation examination on "Low Fluence Behavior of Metallic Fuels."
- Sean McDevitt, Texas A&M University (team members include several researchers from the Lightbridge Corporation): an irradiation and post-irradiation examination on "Irradiation Behavior and Performance of a Uranium-Zirconium Metal Alloy Fuel."
- Emmanuelle Marquis, University of Michigan (team members include TechSource, Inc., and Idaho National Laboratory): a post-irradiation examination experiment on "Radiation-induced Segregation/Depletion at Grain Boundaries in Neutron Irradiated 304SS at Low Dose Rates."
- Mitra Taheri, Drexel University: a post-irradiation examination experiment on "Multi-scale Investigation of the Influence of Grain Boundary Character on RIS and Mechanical Behavior in LWR Steel."

ATR NSUF selected these five projects out of 14 proposals submitted during the spring solicitation period. Each proposal was evaluated based on a variety of factors including feasibility, programmatic relevance and technical reviews. All reviews were then considered by a panel committee before the proposals were placed in their final ranking positions.

In 2007, DOE designated the Advanced Test Reactor and associated post-irradiation examination facilities a National Scientific User Facility to advance basic and applied nuclear research. This designation allows research teams to gain access to INL's ATR, ATR-Critical, Hot Fuel Examination Facility, Analytical Laboratory and Electron Microscopy Laboratory, as well as facilities at six affiliated partner institutions (Massachusetts Institute of Technology, North Carolina State University, University of Wisconsin, University of Michigan, University of Nevada-Las Vegas, and the Illinois Institute of Technology).

The INL ATR NSUF and affiliated partners have facilities capable of conducting reactor testing, post-irradiation examinations and beam line experiments. The ATR NSUF is the only U.S. research reactor capable of providing large-volume, high-flux neutron irradiations in a prototypic reactor environment. With the addition of these five new proposals, the total number of user proposals awarded since the ATR NSUF inception is 25.

The ATR NSUF has open rolling solicitations for proposals with two closing dates each year. The newly announced proposals awarded were submitted during the previous call, which began in October 2009 and closed in April 2010. The next call for solicitations is currently open and scheduled to close Oct. 5, 2010. A U.S. university or college investigator must lead the proposal, however, collaborations between institutions are encouraged.

For user guides and more information about submitting proposals, visit the ATR NSUF website at <http://atrnuf.inl.gov>.

INL is one of the DOE's 11 multiprogram national laboratories. The laboratory performs work in each of DOE's strategic goal areas: energy, national security, science and environment. INL is the nation's leading center for nuclear energy research and development. Day-to-day management and operation of the laboratory is the responsibility of Battelle Energy Alliance.

Subscribe to RSS feeds for INL news and feature stories at www.inl.gov. Follow @INL on Twitter or visit our Facebook page at www.facebook.com/IdahoNationalLaboratory.

—INL-10-018—

[News Release Archive](#)